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10/634,367

08/05/2003

Thomas Senn

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07/15/2008

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EXAMINER

HANG, VU B

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/634,367	<b>Applicant(s)</b> SENN, THOMAS	
	<b>Examiner</b> Vu B. Hang	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/05/2003</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

- This office action is responsive to the communication filed on 04/15/2008.
- The amendments received on 04/15/2008 have been entered and made of record.
- Claims 1-21 are pending in the application.

### ***Response to Arguments***

1. Applicant's arguments filed on 04/15/2008, with respect to the amended independent claims (Claims 1 and 21) and the cited prior art, have been fully considered and are persuasive. Therefore, the previous rejections of Claims 1-21 have been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Romano et al. (US Patent 6,219,154 B1).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6, 9-14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weichmann et al. (US Patent 6,580,524 B1) in view of Romano et al. (US Patent 6,219,154 B1).

4. Regarding **Claims 1 and 21**, Weichman discloses Regarding Claims 21 and 1, Weichmann discloses a printing process involving two stages, a pre-printing stage and an edition

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printing stage which comprises in the pre-printing stage producing digital original image data which represent an original master (see Fig.4 (1,3,70) and Col.4, Line 17-30); producing the digital printing data from the master image for the printing colors involved in the printing (see Col.4, Line 17-30); transmitting the digital printing data to a print shop by way of a data channel (see Fig.4, 2ol.8, Line 6-23 and Col.8, Line 24-33); producing the printing plates in the print shop using the digital Printing data for use in the edition printing to be carried out in a printing machine (see Col.5, Line 54-54); using for the color control of the printing machine test image data corresponding to the test image produced by an image wise colorimetric measurement of at least one edition printing sample using a spectral color measurement system (see Col.4, Line 17-30 and Col.4, Line 43- 57); transmitting the results of the quality monitoring from the pre-printing stage to the print shop through a data channel (see Col.7, Line 6-14, Col.8, Line 6-23 and Col.8, Line 24-33); and using the in the printing shop the results of the quality monitoring transmitted from the pre-printing stage for at least one of the release of the edition printing and the control of the printing process (see Col.7, Line 6-14, Col.8, Line 6-23 and Col.8, Line 24-33).

5. Weichmann fails to disclose transmitting the test image data thus produced in the print shop to the pre-printing stage through a data channel; evaluating the test image data in the pre-printing stage for quality monitoring; repeating the pre-print process when color deviations between the master image data and the test image data are not in acceptable limits; and releasing the edition printing with the printing plates if the color deviations are within acceptable limits. Weichmann, however, teaches the use of test forms for quality monitoring and controlling the printing process (see Col.4, Line 37-57). Weichmann further teaches communicating processing information and information about the image data to the pre-printing stage (see Fig.4 and Col.8,

Line 6-23). Romano teaches a method for calibrating digital plate setters or image setters (see Fig.3, Fig.7A and Col.2, Line 48-55), in which test image data are used to confirm the acceptability of the image data (see Fig.7A, Fig.8 and Co.13, Line 10-20). Romano further teaches that the quality of the recorded images can be continuously monitored and the plate/image setter can be automatically adjusted to ensure proper recording of the desired image (see Col.8, Line 40-45 and Col.13, Line 36-40).

6. Weichmann and Romano are combinable because they are from the same field of endeavor, namely print processing systems. At the time of the invention, it would have been obvious for one skilled in the art to include to the printing process a means for communicating the test image data produced in the print shop to the pre-printing stage for evaluating with the original image data; repeating the pre-print process when color deviations between the master image data and the test image data are not in acceptable limits; and releasing the edition printing with the printing plates if the color deviations are within acceptable limits. The motivation would be to perform quality assurance monitoring on the print setting process and the image data to be printed. The test image data sent top the pre-printing stage for comparison with the original image data would enable appropriate adjustments and corrections on the image data and the print setting process. This would also ensure proper recording of the desired image on the printing plates.

7. Regarding **Claim 2**, Weichmann further discloses determining and then transmitting in the pre-printing stage measurement positions and nominal color values at these measurement positions through a data channel to the print shop (see Col.4, Line 43-57, Col.7, Line 6-14 and

Col.8, Line 6-23), and using the nominal color values in the print shop for color control of the printing machine (see Col.7, Line 6-14).

8. Regarding **Claim 3**, Weichmann further discloses using a spectrally operating color measurement system for the image wise colorimetric measurement of the edition printing sample (see Col.4, Line 43-57), and wherein the test image data the pre-printing stage are spectral data which include for each measured point remission values for several different wavelength (see Col.4, Line 58 - Col.5, Line 3).

9. Regarding **Claim 4**, Weichmann and Hatta teach the printing process of Claim 3 but fail to disclose that the test image data transmitted to the pre-printing stage are spectral data which include for each measured image point, remission values for 16 wavelengths in the range of 400 to 700nm with respective spacing of 20nm. At the time of the invention, it would have been obvious for one skilled in the art to use test image data containing specific remission values. The motivation would be for design choice reasons. A designer may determine the level of accuracy needed for the quality monitoring, and use the test image data with the appropriate remission values.

10. Regarding **Claim 6**, Weichmann further discloses the monitoring of color deviations between nominal color values and the corresponding color measurement values contained in the test image data (see Col.5, Line 61-64, Col.6, Line 41-47 and Col.7, Line 6-14).

11. Regarding **Claim 9**, Weichmann further discloses transmitting the release for the edition printing to the print shop based on the quality monitoring conducted in the pre-printing stage (see Col.7, Line 6-14).

12. Regarding **Claim 10**, Weichmann further discloses transmitting the results of the quality monitoring conducted in the pre-printing stage based on desired color change or modified nominal color values to the print shop (see Col.7, Line 6-14).

13. Regarding **Claim 11**, Weichmann further discloses transmitting the results of the quality monitoring conducted in the pre-printing stage based on desired color change or concentration values for the colors involved in the printing to the print shop (see Col.7, Line 6-14).

14. Regarding **Claim 12**, Weichmann further discloses transmitting the results of the quality monitoring conducted in the pre-printing stage based on desired color change or formulations for the colors involved in the printing to the print shop (see Col.7, Line 6-14).

15. Regarding **Claim 13**, Weichmann further discloses transmitting the results of the quality monitoring conducted in the pre-printing stage based on desired color change or modified digital printing data to the print shop for use in the production of new printing plates in the print shop based on the digital print data (see Col.5, Line 45-54 and Col.7, Line 6-14), and using the printing plates for the edition printing (see Col.5, Line 45-54 and Col.7, Line 6-14).

16. Regarding **Claim 14**, Weichmann further discloses protocolling the print quality of the edition printing (see Col.8, line 24-33).

17. Claims 5 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weichmann et al. (US Patent 6,580,524 B1) in view of Romano et al. (US Patent 6,219,154 B1), and in further view of Laverty et al. (US Patent 6,429,947).

18. Regarding **Claim 5**, Weichmann discloses calculating a test image on basis of a test image data transferred to the pre-printing stage (see Col.7, Line 6-14), but Weichamnn and Hatta fail to disclose visually displaying the test image with a reference image on a screen for quality -

monitoring. Weichmann, however, teaches proofing the image data for quality assurance purposes (see Col.2, Line 26-33). Lavery teaches providing a display preview of a print product for customer approval (see Fig.1 and Col.2, Line 50-52) and passing a proof to a customer for approval (see Fig. 1 and Col.6, Line 20-35).

19. Weichmann, Romano and Lavery are combinable because they are from the same field of endeavor, namely print processing systems. At the time of the invention, it would have been obvious for one skilled in the art include to the printing process of Claim 1 a means for visually displaying the test image with a reference image on a screen for quality monitoring. The motivation would be to provide a visual proofing means for ensuring customer satisfaction. The visual display of the test image with a reference image on a display screen would enable a customer the opportunity to approve the processed image data for printing.

20. Regarding **Claim 15**, the rationale provided for the rejection of Claim 5 is incorporated herein.

21. Regarding **Claim 16**, the rationale provided for the rejection of Claim 5 is incorporated herein.

22. Regarding **Claim 17**, the rationale provided for the rejection of Claim 5 is incorporated herein.

23. Regarding **Claim 18**, the rationale provided for the rejection of Claim 5 is incorporated herein.

24. Regarding **Claim 19**, Weichmann discloses image-wise measuring in the pre-printing stage the test print binding for quality evaluation using the spectral color measurement system (see Col.4, Line 43-57) but Weichmann and Romano fail to disclose producing a screen display



of the test print from the image data obtained, thereby using the screen display as a reference image for comparison with the test image. Weichmann, however, teaches proofing the image data for quality assurance purposes (see Col.2, Line 26-33). Laverty teaches providing a display preview of a print product for customer approval (see Fig. 1 and Col.2, Line 50-52) and passing a proof to a customer for approval (see Fig. 1 and Col.6, Line 20-35).

25. At the time of the invention, it would have been obvious for one skilled in the art include to the printing process of Claim 1 a means for producing a screen display of the test print from the image data obtained, thereby using the screen display as a reference image for comparison with the test image. The motivation would be to provide a visual proofing means for ensuring print satisfaction. The screen display displaying the test prints, would enable a print operator or customer the opportunity to visually monitor and approve the processed image data for printing.

26. Regarding **Claim 20**, Weichmann and Romano teach the printing process of Claim 1 but fail to expressly disclose the color measurement system is equipped with a goniometric measurement means, which allows illumination in different directions for the image capture. Weichmann, however, discloses a color measurement system that measures different area coverages and positions of the colors from the image capture (see Col.4, Line 43-57), and performing densitometric measurements for the colors in the image capture (see Col.4, Line 58 - Col.5, Line 3). At the time of the invention, it would have been obvious for one skilled in the art to include to the color measurement system a goniometric measurement means that allows illumination in different directions for the image capture. The motivation would be to perform the spectral data and densitometric measurements for the obtained image data to produce the test color image data. The spectral data and the density data of the captured image data are obtained

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through measuring the different angles of the colors in the image data, for which goniometric measurements can be applied.

27. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weichmann et al. (US Patent 6,580,524 B1) in view of Romano et al. (US Patent 6,219,154 B1), and in further view of Rasmussen et al. (US Patent 6,912,071 B1).

28. Regarding **Claim 7**, Weichmann discloses produces digital test print data from test image data transferred to the pre-printing stage (see Col.4, Line 17-30, Col.8, Line 13-17 and Col.8, Line 24-33) but Weichmann and Romano fail to disclose producing a physical test print by way of the digital test print data, wherein the quality monitoring includes a visual comparison the test print with a reference image. Weichmann, however, teaches proofing the image data for quality assurance purposes (see Col.2, Line 26-33). Rasmussen discloses producing a physical test print by way of the digital test print data for visually monitoring the image quality of a print product (see Fig.6 and Col.9, Line 15-21).

29. Weichmann, Romano and Rasmussen are combinable because they are from the same field of endeavor, namely print processing systems. At the time of the invention, it would have been obvious for one skilled in the art include to the printing process of Claim 1 a means for producing a physical test print by way of the digital test print data and visually comparing the test print with a reference image. The motivation would be to provide a visual proofing means for ensuring print satisfaction. The printed physical test prints, along with a reference image would enable a print operator or customer the opportunity to visually monitor and approve the processed image data for printing.

30. Regarding **Claim 8**, Weichmann further discloses the reference image is a test print produced in the pre-printing stage using the digital print data (see Fig.6 and Col.9, Line 15-21).

***Conclusion***

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

32. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu B. Hang whose telephone number is (571)272-0582. The examiner can normally be reached on Monday-Friday, 9:00am - 6:00pm.

34. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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35. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vu B. Hang/  
Examiner, Art Unit 2625

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625